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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/058,149

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Toshihiro Takagi

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7590
Crowell & Moring, L.L.P.
P.O. Box 14300
Washington, DC 20044-4300

07/27/2007

EXAMINER

SHEPARD, JUSTIN E

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

07/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/058,149

Applicant(s)

TAKAGI ET AL.

Examiner

Justin E. Shepard

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 4/26/07 have been fully considered but they are not persuasive.

Page 16, Paragraph beginning with "Because":

The applicant argues that McDermott does not disclose performing the first channel tuning technique when there is (1) no channel information in the memory; or (2) there is channel information for some physical channels in memory. The applicant agrees that McDermott teaches an auto-programming feature for a digital/analog television system. As shown in figure 3A (box 334), the decision box will continue back to box 322 if there is no channel information in memory (any more channels in VCT), this is interpreted as the routine being run is there is no channel information in memory and if there is some as on the first run the memory would be empty, but on the second run there would be information from the first channel, but not the second channel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyer (5,982,411) in view of McDermott.

Referring to claim 1, Eyer discloses a channel selection device used in a digital/analog broadcasting receiver comprising:

a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 1);

a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 2, parts 260 and 265);

a memory for storing (figure 2, part 280), as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (column 8, lines 31-33 and 22-26);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 2, part 275; column 8, lines 26-39); and

an input device for inputting a user's instruction for channel selection to the control unit (figure 2, part 165),

wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (column 7, lines 13-16; column 8, lines 50-65), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) containing virtual channel information providing the sub-

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channels with a correlation with an analog broadcasting physical channel (column 5, table 2),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the channel map in the memory a fourth technique is employed in which either

a desired channel is selected by referring to the channel map, or a desired channel is selected based on the physical channel information in the channel map among the channels over a plurality of physical channels and of employing the second technique of selecting a desired channel among the channels in the same physical channel (column 5, lines 24-37).

Eyer does not disclose a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

and wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is channel information for some physical channels in memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed.

McDermott discloses a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 6, lines 21-31);

and wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed (column 6, lines 21-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the physical channel searching and VCT storing taught by McDermott to the channel changing system disclosed by Eyer. The motivation would have been to allow for the broadcaster to dynamically change the groupings as the needs of the users changed.

Referring to claim 2, Eyer discloses a channel selection device used in a digital/analog broadcasting receiver comprising:

a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 1);

a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 2, parts 260 and 265);

a memory for storing (figure 2, part 280), as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (column 8, lines 31-33 and 22-26);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 2, part 275; column 8, lines 26-39);
and

an input device for inputting a user's instruction for channel selection to the control unit (figure 2, part 165),

wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (column 7, lines 13-16; column 8, lines 50-65), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) containing virtual channel information providing the sub-

channels with a correlation with an analog broadcasting physical channel (column 5, table 2),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the memory a fourth technique is employed in which, a desired channel is selected on the basis of the physical channel information in the channel map among the channels over a plurality of physical channels and, it is selected by the second technique among the channels in the same physical channel (column 5, lines 24-37).

Eyer does not disclose a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

and wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is

channel information for some physical channels in memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed.

McDermott discloses a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 6, lines 21-31);

and wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed (column 6, lines 21-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the physical channel searching and VCT storing taught by McDermott to the channel changing system disclosed by Eyer. The motivation would have been to allow for the broadcaster to dynamically change the groupings as the needs of the users changed.

Referring to claim 3, Eyer discloses a channel selection device used in a digital/analog broadcasting receiver comprising:

a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 1);

a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 2, parts 260 and 265);

a memory for storing (figure 2, part 280), as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (column 8, lines 31-33 and 22-26);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 2, part 275; column 8, lines 26-39); and

an input device for inputting a user's instruction for channel selection to the control unit (figure 2, part 165),

wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (column 7, lines 13-16; column 8, lines 50-65), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) containing virtual channel information providing the sub-

channels with a correlation with an analog broadcasting physical channel (column 5, table 2),

wherein the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (figure 2, parts 165 and 275), appropriately uses one of the following four techniques of:

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the memory a fourth technique is employed in which, a desired channel is selected by referring to the channel map (column 5, lines 24-37).

Eyer does not disclose a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is channel information

for some physical channels in memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique, by which is the first technique is employed.

McDermott discloses a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 6, lines 21-31);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique, by which is the first technique is employed (column 6, lines 21-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the physical channel searching and VCT storing taught by McDermott to the channel changing system disclosed by Eyer. The motivation would have been to allow for the broadcaster to dynamically change the groupings as the needs of the users changed.

Referring to claim 5, Eyer discloses a digital/analog broadcasting receiver equipped with the channel selection device according to claim 1, for receiving a digital

broadcast according to the ATSC (Advanced Television Systems Committee) standard (column 10, lines 59-62).

Eyer does not disclose a device for receiving an analog broadcast according to the NTSC (National Television Systems Committee) standard.

McDermott discloses a device for receiving an analog broadcast according to the NTSC (National Television Systems Committee) standard (column 3, lines 49-51).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the NTSC standard taught by McDermott to the device disclosed by Eyer. The motivation would have been to enable Eyer to receive normal analog television signals.

Referring to claim 6, Eyer discloses a channel selection device used in a digital/analog broadcasting receiver comprising:

a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 1);

a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 2, parts 260 and 265);

a memory for storing (figure 2, part 280), as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (column 8, lines 31-33 and 22-26);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 2, part 275; column 8, lines 26-39); and

an input device for inputting a user's instruction for channel selection to the control unit (figure 2, part 165),

wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (column 7, lines 13-16; column 8, lines 50-65), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 2),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when the sub-channel is changed in the current main channel a first procedure is employed in which the VCT in the current physical channel is referenced to select an upward/downward sub-channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and there is the channel data of a main channel to which the current main channel is to be changed and the sub-channel a fourth procedure is employed in which

the channel data is referenced to change the main channel and the sub-channel, thus selecting the channel (column 5, lines 24-37).

Eyer does not disclose a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is no channel data of a main channel to which the current main channel is to be changed and no channel data of the sub-channel a second procedure is employed in which, the reception frequency is shifted upward/downward to thereby search for other physical channels and then refers to the VCT of a detected physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number;

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is the channel data of the main channel to which the current main channel is to be changed and there is no sub-channel data a third procedure is employed in which the main channel data is referenced to change the main channel and then refers to the VCT detected in the corresponding physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number.

McDermott discloses a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is no channel data of a main channel to which the current main channel is to be changed and the sub-channel a second procedure is employed in which, the reception frequency is shifted upward/downward to

thereby search for other physical channels and then refers to the VCT of a detected physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number (column 6, lines 21-31);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is the channel data of the main channel to which the current main channel is to be changed and there is no sub- channel data a third procedure is employed in which the main channel data is referenced to change the main channel and then refers to the VCT detected in the corresponding physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number (column 6, lines 21-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the physical channel searching and VCT storing taught by McDermott to the channel changing system disclosed by Eyer. The motivation would have been to allow for the broadcaster to dynamically change the groupings as the needs of the users changed.

Referring to claim 7, Eyer discloses a channel selection device used in a digital/analog broadcasting receiver comprising:

a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 1);

a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 2, parts 260 and 265);

a memory for storing (figure 2, part 280), as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (column 8, lines 31-33 and 22-26);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 2, part 275; column 8, lines 26-39); and

an input device for inputting a user's instruction for channel selection to the control unit (figure 2, part 165),

wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (column 7, lines 13-16; column 8, lines 50-65), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 2),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when the sub-channel is changed in the current main channel a first procedure is employed in which the VCT in

the current physical channel is referenced to select an upward/downward sub-channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and there is the channel data of a main channel to which the current main channel is to be changed and the sub-channel a fourth procedure is employed in which the channel data is referenced to change the main channel and the sub-channel, thus selecting the channel (column 5, lines 24-37);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is the main channel data but not the sub-channel data the main channel data is referenced to change the main channel and referring to the corresponding VCT, thus changing the sub-channel (column 5, lines 24-37); and

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is the channel data of the main channel and the sub-channel the channel data is referenced to change each of the channels (column 5, lines 24-37).

Eyer does not disclose a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and there is no channel data of the main channel and the sub-channel other physical channels to refer to a detected VCT are searched for, thus changing the sub-channel.

McDermott discloses a system wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and there is no channel data of the main channel and the sub-channel other physical channels to refer to a detected VCT are searched for, thus changing the sub-channel (column 6, lines 21-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the physical channel searching and VCT storing taught by McDermott to the channel changing system disclosed by Eyer. The motivation would have been to allow for the broadcaster to dynamically change the groupings as the needs of the users changed.

Referring to claim 8, Eyer discloses a digital/analog broadcasting receiver equipped with the channel selection device according to claim 6, for receiving a digital broadcast according to the ATSC (Advanced Television Systems Committee) standard (column 10, lines 59-62).

Eyer does not disclose a device for receiving an analog broadcast according to the NTSC (National Television Systems Committee) standard.

McDermott discloses a device for receiving an analog broadcast according to the NTSC (National Television Systems Committee) standard (column 3, lines 49-51).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the NTSC standard taught by McDermott to the device disclosed by Eyer.

The motivation would have been to enable Eyer to receive normal analog television signals.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600